

## Electronic Supplementary Information

### **Solvothermal synthesis of Nb-doped TiO<sub>2</sub> nanoparticles with enhanced sonodynamic effect for destroying tumors**

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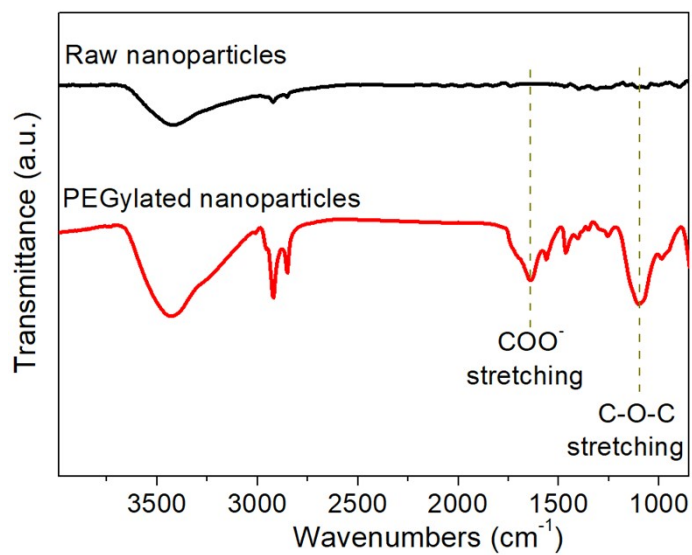
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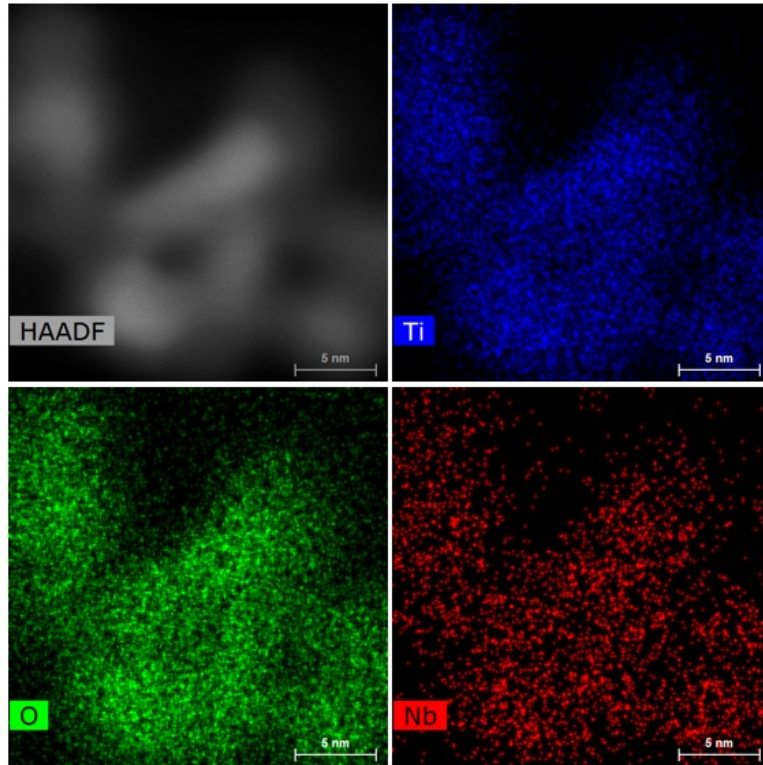
## Supplementary figures



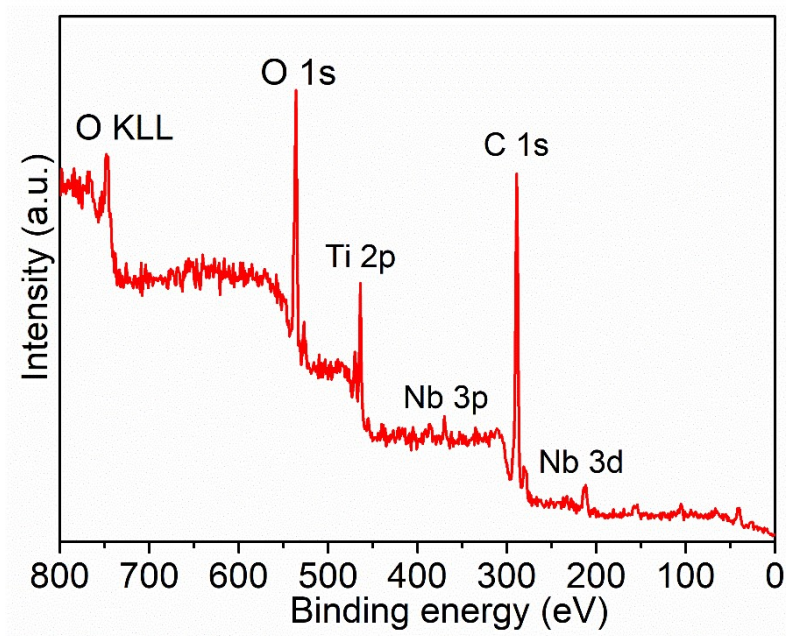
**Fig. S1** FTIR spectra of raw and PEGylated nanoparticles.



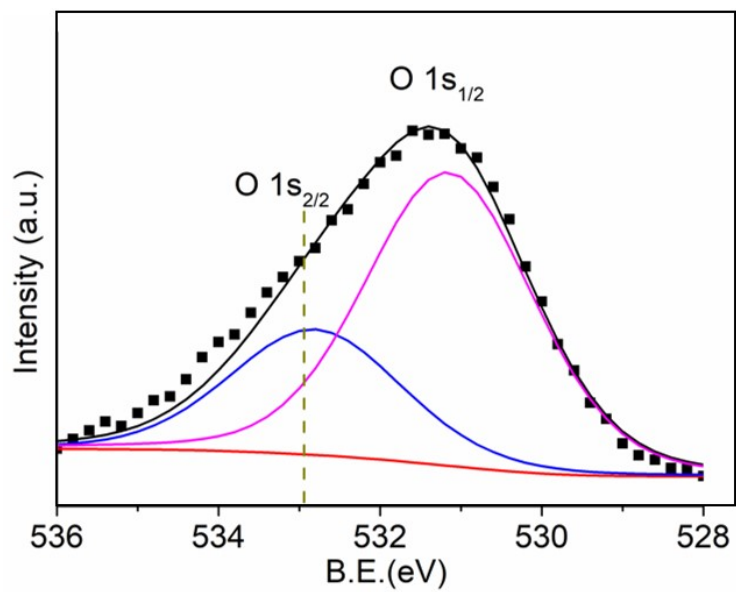
**Fig. S2** The photograph of pure TiO<sub>2</sub> sample (Left) and TiO<sub>2-x</sub>:Nb sample (Right).



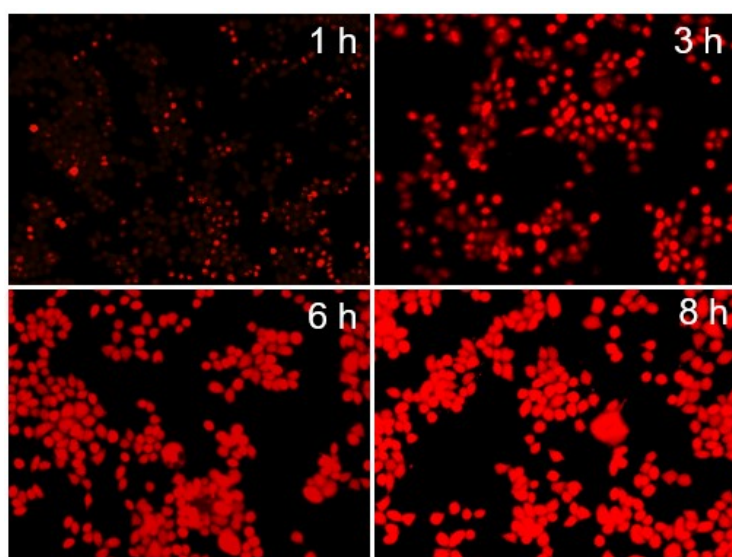
**Fig. S3** The elemental maps of  $\text{TiO}_{2-x}\text{:Nb}$  nanoparticles.



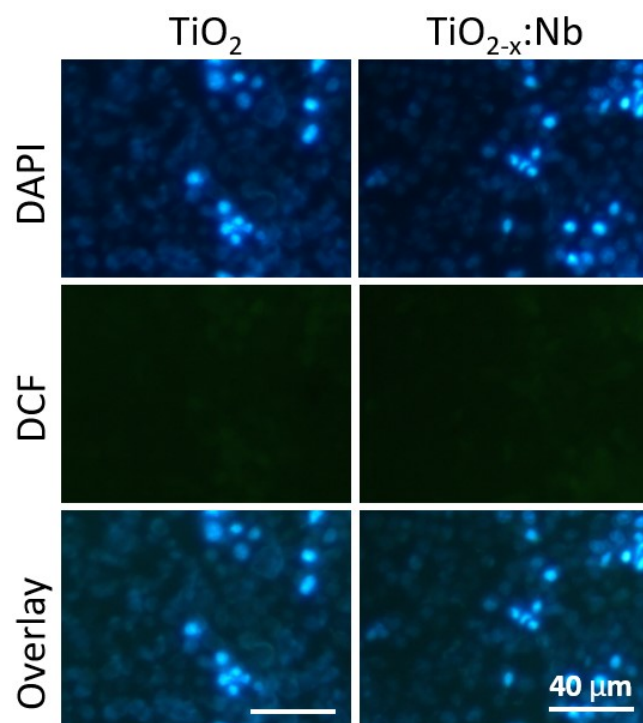
**Fig. S4** The XPS survey spectrum of  $\text{TiO}_{2-x}\text{:Nb}$  samples.



**Fig. S5** The O 1s XPS spectrum of TiO<sub>2-x</sub>:Nb samples.



**Fig. S6** Fluorescent images of 4T1 cells incubated with RhB-labeled nanoparticles for different incubation time of 1, 3, 6, and 8 h.



**Fig. S7** The fluorescence images of DCF/DAPI stained 4T1 cells treated with PEGylated  $\text{TiO}_2$  or  $\text{TiO}_{2-x}\text{:Nb}$  (40 ppm).